

NOV 06 2006

Atty. Dkt. No. 030307-0217
U.S. Serial No. 10/623,578

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application.

1. – 30. (Canceled)

31. (Previously Presented) A lactic acid bacterial cell culture according to claim 42, wherein (A) cells of said culture have, relative to a lactic acid bacterial cell produced in the presence of a readily metabolized carbon source in excess, an increased activity of the enzymes involved in the uptake and/or degradation of a carbon source in which said cell culture has been propagated, and (B) said culture contains a detectable amount of a porphyrin compound and/or a cytochrome.

32. (Previously Presented) A lactic acid bacterial cell culture according to claim 31, wherein said cells constitutively express the *lac* operon and/or *gal* operon.

33. (Previously Presented) A lactic acid bacterial cell culture according to claim 32, wherein constitutive expression is provided by a mutation in the gene coding for the *lac* repressor and/or *lac* operon.

34. (Previously Presented) A lactic acid bacterial cell culture according to claim 31, wherein said cells contain at least 0.1 ppm on a dry matter basis of a porphyrin compound.

35. (Previously Presented) A lactic acid bacterial cell culture according to claim 31, wherein said cells contain at least 0.1 ppm on a dry matter basis of cytochrome.

36. (Previously Presented) A lactic acid bacterial cell culture according to claim 31, wherein said cells are of a lactic acid bacterial species selected from the group consisting of a *Lactococcus* species, a *Streptococcus* species, a *Leuconostoc* species, a *Lactobacillus* species, and an *Oenococcus* species.

37. (Previously Presented) A starter culture composition comprising the lactic acid bacterial culture according to claim 31.

38. (Previously Amended) A composition according to claim 37, wherein the composition is in the form of frozen, liquid or freeze-dried composition.

Atty. Dkt. No. 030307-0217
U.S. Serial No. 10/623,578

39. (Previously Amended) A composition according to claim 37, containing an amount of viable, culturally modified lactic acid bacterial cells which is in the range of 10^4 and 10^{12} CFU per g.
40. (Previously Presented) A composition according to claim 37 that comprises cells of two or more different lactic acid bacterial strains.
41. (Previously Presented) A composition according to claim 37 which further comprises at least one component enhancing the viability of the bacterial cell during storage, including a bacterial nutrient and/or a cryoprotectant.
42. (Currently Amended) A culture of lactic acid bacterial cells that are characterized by a reduced glycolytic flux and, under aerobic conditions, a respiratory metabolism, whereby said culture displays a yield of biomass exceeding that obtainable from substrate-level phosphorylation, wherein (i) said reduced glycolytic flux is provided by introducing mutations in said cells to generate a lower rate of metabolism of the carbon source and (ii) said respiratory metabolism is provided by introducing manipulations to said cells to produce an increased yield of ATP in said cells via oxidative phosphorylation when said cells are propagated in the presence of a terminal electron acceptor.
43. (Previously Presented) A starter culture composition comprising the lactic acid bacterial culture according to claim 42.
44. (Previously Presented) A composition according to claim 43, wherein the composition is in the form of frozen, liquid or freeze-dried composition.
45. (Previously Presented) A composition according to claim 43, containing an amount of viable, culturally modified lactic acid bacterial cells which is in the range of 10^4 and 10^{12} CFU per g.
46. (Previously Presented) A composition according to claim 43 that comprises cells of two or more different lactic acid bacterial strains.
47. (Previously Presented) A composition according to claim 43 which further comprises at least one component enhancing the viability of the bacterial cell during storage, including a bacterial nutrient and/or a cryoprotectant.